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DRG REIMBURSEMENT FOR PHYSICIAN SERVICES: IMPACT UPON REFERRALS, CONSULTATIONS AND QUALITY OF PATIENT CARE

by

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The introduction of the Medicare and Mediciad programs in 1966 led to an immediate increase in the role of the federal government in health care delivery and finance. Each year since the start of the two programs the federal government's dollar investment has escalated: federal outlays for Medicare alone increased from 1.1 billion dollars in 1966 to 51 billion dollars in 1982.[1] Over the past sixteen years the price of all goods and services in the United States has increased; however, the annual rate of the rise of health care costs has always exceeded the overall rise of the consumer price index, and the proportion of the gross national product allocated to health care has continued to grow.[2]

The dramatic increase in the Medicare budget has been attributed to a variety of economic, medical and demographic factors. These include: (1) an increase in the size, age and longevity of the Medicare population; (2) the proliferation of medical technologies; and, especially (3) the cost-based third-party system of reimbursement for physician services and hospital care.

The rise in expenditures for Medicare and Medicaid have brought about pressures to control prices and to change the prevailing patterns of reimbursement. On April 20, 1983 the Social Security Amendments Act of 1983 was signed into law. Title VI of the Law contained the prospective payment system (PPS) for hospitals. The Health Care Financing Administration (HCFA) followed with innovative regulations, and on October 1, 1983 the federal government began to pay hospitals for care provided to Medicare beneficiaries based upon diagnosis related groups (DRGs).

The new pricing system is prospective. The Medicare program plans to pay hospitals a fixed dollar amount per discharge, based upon the diagnosis of the patient. The cornerstone of the PPS, and the basis for payment under it, is the DRG.[3] DRGs are a method of classifying patients on the basis of diagnosis and are derived from the patient's discharge abstract, by combining the patient's age, principle diagnosis, complicating or comorbid disagnoses and procedures performed. At present there are 467 DGGs; it is expected that each DRG will capture the nature and severity of each patient's illness and the resources necessary for his or her care. DRGs are claimed to be "clinically coherent"; that is, all patients in a given DRG have a similar disease and require a similar mix of treatments, tests and operations. DRGs are also expected to be "homogeneous" with respect to utilization of resources; that is, on a statistical average each patient will require roughly the same expenditures and the same length of stay.

Under the new PPS, payment to hospitals for Medicare beneficiaries will be based upon the discharge diagnosis, rather than upon the actual number of hospital days, the number of tests or x-rays ordered, or the sum of costs incurred in providing care. Except for certain statutorily-allowed deductables and co-payments, the federal payment to the hospital for a given case will constitute payment in full. Thus, for the first time hospitals will be placed at financial risk for inefficient or inexpeditious patient care.

At present the PPS covers only non-physician services provided to Medicare patients. The fees physicians charge for services provided to beneficiaries are not included, and physicians will continue to bill on a fee-for-service basis under Part B of Medicare. However, as the phase-in of the PPS continues during the next three years, the problem of physician reimbursement will emerge as a critical and controversial public policy and financing issue. Indeed, the enabling legislation for the prospective payment system mandates that HCFA study the feasibility and advisability of extending DRGs to cover physician services.

The Importance of Including Physicians under the DRGs

For a variety of reasons it is necessary to consider an extension of the PPS to physicians. First, the physician component of the Medicare budget is expensive. In 1979 physicians received \$6.5 billion for services rendered to Medicare beneficiaries; by 1982 that figure had increased to \$11.4 billion.[1] Payments to physicians now account for more than one-fifth (22%) of Medicare's total costs. Price inflation and increased intensity of services have both contributed to the rise in expenditures for physician services. For example, in 1982 physicians' fees rose 9.4%, compared to increases of 6.1% for the broad CPI. With respect to the intensity of care, the number of surgical operations performed in community hospitals has increased an average of 2.4% per year in the past decade, a rate faster than the growth of the United States population. Furthermore, the volume of clinical laboratory tests has been increasing at a 15% annual rate in recent years.[1]

Second, physicians affect personal health care expenditures for Medicare beneficiaries far more than is indicated by the 22% share of spending devoted to their services.[1] Beyond direct "hands-on" care, physicians have a central role in directing virtually all admissions, discharges, tests, consultations and procedures. By some estimates physicians determine 70 to 80% of total health care spending.[4,5] In 1980 physicians directed \$110 billion in health care costs, in addition to the \$45 billion spent for hands-on physician care.[6]

Third, physicians are increasing in number. Since 1950 the number of physicians has doubled and further increases in physician supply are projected into the 1990's.[7] The expected number of actively practicing physicians (533,750) and physician:population ratio (215:100,000) in 1990 is judged by most analysts to exceed the need.[8,9] Because of the number of physicians and their central role in determining the size and shape of the health care dollar, one wonders if control of hospital costs under the PPS can ever be achieved, if physician decision making is not directly affected.

Fourth, physicians spend, on the average, one-third of their working time in hospitals. For some physicians, especially medical subspecialists and surgeons, the hospital is their major practice locale.[10] Even beyond the hours devoted to hospital care, the hospital is the most important cost center for a very large proportion of practicing physicians -- that is, physician income is relatively higher for hospital encounters compared to office care.[11]

Clearly, physician and hospital reimbursement policies for inpatient care should be considered linked, if not inseparable. It would seem desirable to design a physician reimbursement system which is consistent with hospital reimbursement policies. Since physicians are the most influential "input" in hospital costs for Medicare beneficiaries, physician payment policies may prove critical to achieving the cost containment goals of the new prospective payment system.

Implementation of Physician DRGs: Administrative Problems and Counterproductive Economic Incentives

Physicians are currently paid on a fee-for-service basis for services provided to medicare beneficiaries. However, many policymakers now agree that "payment-per-visit," "payment-per-procedure" and payment based upon "usual and customary charges" is no longer desirable or affordable. Therefore, it has been proposed that the PPS be expanded to include physician services. Once again the objective is clear. Physicians will be paid a fixed dollar amount for the total care of the patient, and the amount will be based on the patient's age, principal and secondary diagnoses, and procedures. Like the hospitals in which they work, physicians will be placed at financial risk for excessive costs and long lengths of stay. According to some plans now receiving consideration, all care provided by all physicians to a given patient will be bundled; a designated primary attending will receive the "lump" DRG payment and will have the discretionary authority to "purchase" the services of consultants and hospital-based physicians on behalf of the patient. Certainly, implementation of a DRG-based prospective payment system for physician care offers the promise of reduced federal expenditures under the Medicare program.

However, in considering whether or not to initiate a case-based reimbursement system for physician care, complex administrative and financial issues are brought to the fore. For example, it is not known if the 467 DRGs, designed for the purposes of hospital utilization review, are sufficiently meaningful and homogeneous for the purposes of physician reimbursement. There are about 7,000 acute care hospitals in the United States, but there are in excess of 400,000 practicing physicians. Thus, there are fifty times more physician decision-making units than hospital decision-making units contributing to variance. Physician DRGs will also be subject to criticism if they fail to adjust for severity of illness, and if they fail to provide for equitable reimbursement.[12-14]

A second problem is the set of counterproductive economic incentives built in to the PPS. As discussed in earlier reports to HCFA,[15] under the PPS providers are encouraged to: (1) admit larger numbers of patients, especially patients with easy to care for illnesses and short anticipated lengths of stay; (2) split illness into two parts, in order to spread a patient's care over two hospital admissions; (3) unbundle diagnostic procedures, shifting some to the ambulatory setting (outside the PPS); (3) upgrade primary and secondary diagnostic codes, in order to obtain a higher-paying DRG assignment; (5) perform more complex surgical procedures to inflate the DRG ("procedure inflation"); and (6) prolong the hospital stay of patients with lingering illnesses, as the outlier "trim" point is approached. The problems of case mix inflation ("DRG creep"), unbundling, increased admissions and split admissions have been discussed in detail in other reports and will not be considered here. It is true, however, that if both providers -- hospital and physician -- are paid preset sums under the DRG system, these perverse economic incentives will become doubly strong. In particular, the problems of defining illnesses and comorbidities and assigning DRGs may prove difficult to control. For the major factor which determines the DRG -- and thus determines the payment to the provider -- is the physician's assessment of the patient's diagnosis and treatment approach. Regulations require that physicians record all diagnostic and procedure data on the face sheet in an honest and responsible manner, and peer review organizations (PROs) will be charged with monitoring the validity of diagnostic information provided by the hospital for the purposes of payment (DRG certification). Still, complex definitional issues will persist and powerful economic incentives to pursue "loopholes" will develop.

Physician DRGs and Quality of Care

The major objective of the PPS, as stated by HCFA, is to establish the federal government as a prudent purchaser of health care while maintaining quality and accessability of services for beneficiaries.[16] The prudent buyer objective is easily understood: Medicare plans to pay providers a predetermined amount based on the DRG, rather than on the basis of "reasonable" costs or charges. The issues of quality and accessability, however, are elusive. "Quality" includes not only effectiveness and technical merit of care, but also acceptability to patients, conformance to standards, comprehensiveness and safety of services.[17-20] "Accessability," similarly, implies not only geographic proximity and the means to pay a provider, but also access to the full range of services judged necessary. Definitions of quality are legion; certainly the "process" of care and the relationship of the provider to the patient are as important as the cure.

Reform of reimbursement practices for physicians and control of expenditures are top priorities for HCFA and the Medicare program. However, holding down costs must have equal footing with measures to maintain or improve the quality of care. In deciding whether to extend DRGs to cover physician care, HCFA will have to consider the potential for fiscal savings side by side with changes anticipated in the content and quality of care.

The remainder of this article examines the issues of quality and accessability of medical care if the PPS is broadened to cover physicians' services. This article is a discussion of the potential clinical impact of a case-based DRG payment system for physicians. Questions of quality of medical care -- that is, outcome, content, accpetability, comprehensiveness and technical merit -- are raised. Specifically, we consider the potential impact of DRGs on one discretionary function of physicians -- the decision to seek referrals and consultations for hospitalized patients. These are complex questions, because, in addition to the difficult notions of "quality" and patient "outcome," physician behavior is involved. Nevertheless, to the extent that implementation of a DRG system changes the financial incentives for physicians and restricts physicians' lattitude in ordering medical services or consultations, the practice of medicine will inevitably change -- for better or for worse.

The Decision to Seek Consultations: Economists' Perspective

At the heart of the DRG system is placing the provider at risk for unnecessary costs. Under a DRG payment system a patient's primary attending physician will be paid a lump sum, predetermined from statistical averages according to the patient's age, principle diagnosis, procedures and comorbid and complicating diseases. It is currently envisioned that one designated primary attending will receive the reimbursement for each DRG case. That physicians must accept the DRG payment rate as payment in full for the hospital care of that patient. The primary physician is encouraged to be efficient and frugal; indeed, if the patient under his care is judged to need the services of a consultant physician, the primary attending must share the DRG reimbursement with the new consultant. The patient's primary physician is at risk, for he must purchase care from consultants he calls into the case. In current parlance, the primary attending is expected to become a "gatekeeper" for costs,[21] as he assumes overall responsibility for the clinical care of his patient and for all costs incurred. It is hoped that the gatekeeper-physician will become the clinical and financial manager of the patient's hospital care; indeed, it is hoped he will take complete charge of his patients, overseeing a more holistic, more comprehensive, more efficient and less fragmented delivery of services.

Bundling all costs into a single payment to the gatekeeper is a marked departure from the current fee-for-service mechanism of reimbursement. In the fee-for-service mode, physicians order for patients whatever appears to be needed, including tests and operations, ancillary care and the services of consulting physicians. There is no incentive to save, since all of the ancillary services are, from the physicians' point of view, free.

According to economists, physician services based on referrals are a "derived demand."[22] The primary attending freely refers patients to colleagues for surgery or advice (consultations), and the new physician bills independently and separately for his services. Unlike all other businesses, the principal physician does not have to pay for the extra services. From the point of view of the initial "physician-contractor," consultations constitute free goods. Under case-based reimbursement separate billing and "free goods" may be eliminated. Then, physicians, acting on behalf of patients and themselves, will have a clear and powerful incentive to seek fewer consultations.

The Decision to Seek Consultations: Clinician's Perspective

It is difficult to apply a single microeconomic theory to decision making by physicians, as long as the interactions of financial, professional and human incentives remain poorly understood. Even if one accepts that, for the most part, hospitals today are operated as "physicians' cooperatives" and that physicians will strive to maximize their income,[23] other, non-pecuniary factors operate as well. Among the factors which determine the decision to seek consultations are the following: (1) the physician's age, level of training, and subspecialty; (2) the physician's pride, ego, and ability to tolerate uncertainty regarding diagnosis, treatment and prognosis; (3) local customs and standards of care; (4) the particular hospital's guidelines and regulations (often, hospital bylaws require that consultations be obtained for patients with critical medical problems[24]); (5) the size and formal organization of the physician's practice (group, HMO, etc.); (6) size and academic affiliation of the hospital; and (7) professional interest and teaching responsibilities of the physician.[25-27] Patient-related factors are also important in the decision to seek a consultation. Patients have varying demands and abilities to pay for consultant's care. Of course, advanced age, case-mix, severity of illness, prognosis and the presence of psychosocial conditions are also important factors which determine the need for consultants.

One hope of a new DRG payment system for physicians is to reduce the number of additional physicians brought into the care of the patient. A key underlying assumption is that some, if not most, "extra services" are ordered unnecessarily. The corollary is that patients will not suffer if fewer consultations are sought. Optimism for this line of argument is primarily engendered by studies of laboratory tests and procedures, which indicate that only a minority positively influence patient care.[28-31] However, consultations are not tests; the consultant is expected to bring critical wisdom, judgement, experience and technical expertise to the care of a sick patient. Thus, it is necessary to determine the clinical value of consultations; that is, to determine how often they are needed, and how often they are superficial, redundant or misapplied.

How Often Are the Consultations Necessary

Attending physicians usually order consultations on behalf of inpatients in order to obtain diagnostic and/or treatment advice.[32] In addition consultations are frequently requested by primary physicians seeking assistance in performing a procedure (e.g., lumbar puncture or colonscopy) or a test (e.g., echocardiogram or EEG). Other medical reasons for requesting consultations include assistance in evaluating a specific symptom or sign (for example, dizziness or a heart murmur) or interpretation of an electrocardiogram or blood test abnormality. One of the most common reasons for consultations is the preoperative management of chronic illness, especially hypertension, diabetes and coronary artery disease.[33] Almost all generalists and specialists order consultations in the course of caring for hospitalized patients. Unfortunately, even such basic data as the rates of consultations and referrals are not well known.

In teaching hospitals approximately 50% of referrals to general internists are for pre-and post-operative care.[33] Most consultations are ordered on behalf of patients who have serious medical conditions. According to Charleson, when surgeons request pre-operative consultations, in about one-fourth of the cases the patients are moderately or severely ill. The majority (56.4%) of patients have at least one chronic serious medical condition, such as chronic respiratory disease, alcoholism, malignancy or angina.[33] The presence of the underlying disease is usually the reason for the consultation. In a similar study Byyny examined the reasons for pre-operative consultations ordered for diabetic patients: 88% had at least one additional, active medical illness.[34]

Do Patients Benefit from Consultations

In 1983 Lee, Pappius and Goldman reviewed the outcome of 156 consultations conducted in a teaching hospital.[32] In 23% of the cases the consultation led to a change in the patient's diagnosis or treatment and thus proved "crucial" to patient care. An additional 46% of consultations contributed useful new insights or information. Twenty-five percent were considered only confirmatory, of diagnoses or plans already formulated. Two percent were of "academic" (educational) value only. Just 4% of consultations were judged superfluous . Overall, more than 90% of consultations were crucial or contributory. The impact of consultations was higher if the consultations were linked to assistance in performing a specific procedure.

Sears reported a study of 202 inpatient consultations, requested of a general internal medicine consultation service.[35] Consultants made an average of 6.2 recommendations per patient. On average, one of the six (range 0-6) was considered[50] critical to treatment that it had to be instituted within twenty-four hours. Of interest to HCFA, the number of important recommendations made by consultants was higher for older patients and for those most severely ill.

Charleson also measured the impact of inpatient consultations, paying special attention to preoperative patients.[33] The consulting service evaluated 210 patients preoperately; they recommend cancellation of surgery in 2% and postponement in 9%. In an additional 5% of cases the consultants concurred with plans to proceed with surgery contingent upon evaluation and/or resolution of one or more medical problems.

Other data confirm that cited above and suggest that, indeed, general medical consultations are an important component of medical care. Horwitz demonstrated that 82% of consultations were "effective" -- that is, they changed or provided need and confirmation of a previously suspected diagnosis.[36] In only 18% no diagnostic effect could be demonstrated. Even in the "non effective" group, however, the consultant's advice was often utilized. Often, the consultant brought other diagnoses, not previously considered, to the attention of the referring physician, and then was able to exclude these diagnoses. For example, a blood clot in the lung was not at first considered as the cause of a postoperative fever; the consulting physician raised this possiblity and then helped the primary physician to exclude the potentially lethal condition.

Compliance with consultants' recommendations is an indirect measure of their utility. In several studies compliance ranges from 50-80%.[35,37] Although this rate of compliance may appear low, it must be remembered that it is not the obligation of the primary physician to follow all advice which is offered. Properly, the attending physician will consider the suggestions of consulting physicians and dismiss what is not in the interests of the patient.

It has been suggested that some consultations, especially preoperative visits, could be conducted in the pre-hospital setting (although as noted, the Medicare program might not accrue a savings by such unbundling). It is of interest, therefore, that in studies by Horwitz more than one-half (58%) of consultations performed by a general medical service were to evaluate a new medical problem, one first discovered during the hospitalization.36 Only 42% of consultants were asked to evaluate a previously established medical condition.

One unrecognized benefit of medical consultations is the detection of previously unsuspected illnesses. Such illnesses may be unrelated to the patient's reasons for admission and reason for consultation, but may be clinically important. Of 250 consultations reviewed by Horwitz, in one-fifth the consultants detected one or more unsuspected problems which required treatment during that hospitalization.36 Recently Heffernen studied 102 consecutive consutlations at Boston City Hospital, where only specific questions were addressed to the consultant.38 In 33% of the cases the consultant discovered new major problems.

Consultations performed by subspecialists, rather than general internists, also occur commonly in hospitals today. The utility of subspecialty consultations has been confirmed in sporadic reports. McKenzie examined the activity of a cardiology consultative service.39 Twenty-eight percent of consultations led to diagnostic action (a test, a procedure, or another consultation); 48% led to a drug change or start; the figures were higher for older patients. There was 82% compliance with the drug recommendations made by the consultating cardiologists, and 64% compliance with recommendations for diagnostic tests. In a recent review of psychiatric consultations, 21% contained specific recommendations for diagnostic or therapeutic action; compliance was 53%.[40] Finally, Perlman recently reviewed 75 consecutive referrals to a pulmonary service.[41] In 55% of cases the pulmonary problem was the main reason for the patient's hospitalization and in 45% of cases, the consultation was for pulmonary problems detected after admission. Fifty percent of patients were judged to have "definitely benefited from the consultation after therapeutic suggestions were made (44% were left unchanged and 5% were adversely affected). In 95% of cases in which a diagnostic suggestion was made, it later proved to be correct. Fifty-two percent of patients were judged to have "definitely benefited" from the consultation, after therapeutic recommendations were made (44% were left unchanged, and 4% were adversely affected). Although only half of these patients benefited, it should be stressed that many patients, because of advanced age, malignancies and other severe underlying diseases, may have had little hope of recovery or a favorable outcome.

The process of medical consultation is incompletely understood. However, data suggests that the inpatient consultative process is a common and important component of medical care. A substantial proportion of patients are moderately or severely ill; a majority have at least one chronic, major medical disorder. Data also suggests that consultations for inpatients usually provide important diagnostic and therapeutic information, and that compliance with recommendations is high. The number of recommendations offered by consultants appears to increase with the patient's severity and complexity of illness.

How Costly Are Medical Consultations

About 70% of inpatient consultations lead to at least one additional test or procedure.[32] In a recent study in Boston consultants recommended additional tests and procedures totaling an average of $300 per patient (median = $113), not including the fee for the consultation itself.[32] Even simple preoperative consultations are costly; Rudd discovered that the bill for the average preoperative consultation for diabetic patients undergoing elective surgery was $179 (in 1976 dollars).[34] No relationship of expense and outcome has been demonstrated.[32,34]

In fact, no proper study of the costs of referrals and consultations has even been reported. The cost impact may be larger than the consultant's fee and recommended tests suggests; a positive feedback loop may operate, such that each consultant recommends further tests, procedures, and consultations, which lead to iatrogenic illness, nosocomial infections and the need for additional hospital days and services.[42-44]

Is There a Cost of Underutilizing Consultants

Of course a hidden cost may also attend the decision not to obtain consultations, if the requirements for medical care rise. Indeed, underutilization of consultations is a risk under a physician DRG payment system. In a study of North Carolina general practitioners conducted in the early 1950's, it was determined that consulting physicians were not utilized enough in situations where they could have been of help.[53] In a study of general physicians in two provinces of Canada, Clute found that 30% of general practitioners saw and treated patients they should have referred to specialists.[54] Potentially, restriction of consultation activity may encourage general physicians to care for patients or perform procedures for which they are not qualified. Not using consultants could increase complications, lengths of stay and costs for Medicare patients.

It is also possible that the labors of consultants generally save money. Many consultants do not recommend costly tests, but rather simple ones. For example in Goldman's study fully 91% of consultants conducted primary data gathering; most often this included an independent history from the patient and family members, an independent physical examination, or telephone calls to physicians or record rooms of other hospitals. Frequently, consultants are the first to review old x-rays and electrocardiograms or to examine the urine or sputum under the microscope.[45] Such efforts may provide important diagnostic information, and lead to a more thoughtful selection of specialized tests.

The cost of inpatient consultations to patients and third party payors has neven been analyzed. Yet, an estimate of their cost is of critical importance to HCFA. Elderly patients account for a disproportionate share of total health care costs[46]; they also appear to require more frequent and intensive consultations, compared to younger patients.[35] Among Medicare patients most resources are expended to care for the minority who are most severely ill. Indded, three-fourths of Medicare dollars are spent to care for the top 10% of patients ranked in terms of cost.[47] Although it remains to be determined if referrals and consultations are similarly concentrated in the sickest decile, it is likely that consultations exert their greatest impact on the cost and quality of care among those Medicare patients who are most severely ill.

How are Physicians Affected by Consultations

Obviously, the process of consultation has important effects on the practices and profits of physicians. At least 20% of an internist's professional time is spent in consultative work. Approximately one-third to one-half of an internist's new patients are seen in referral or consultation.[48-49] For some medical subspecialists and surgeons the importance of consultations is far greater. In some urban areas, psychiatrists, neurologists, surgeons and others obtain 90% of their patients through consultations.[25] Referrals are especially important to subspecialists who perform procedures. For example, Manning studied 1,276 referrals to a gastroenterology practice during a twelve month period.[50] Eighty percent of all referrals were for inpatients, and 50% of all patients were more than 50 years of age. As part of the consultative process the gastroenterologist performed 1,217 procedures, or an average of one procedure per referral.

It must also be recognized that consultations serve another purpose, beyond patient care or profit. Consultations are a vital part of the intellectual life of teaching and community hospitals. Consultations are a proper means of continuing education for physicians. Through referrals and consultations, physicians share new knowledge and refresh one another regarding diagnosis, therapy, improvements in care and even cost-saving technologies. In teaching hospitals consultations are also a critical component of resident and fellow training.[24,34,51-52]

Finally, consultations are often conducted free in the hospital for the benefit of both physicians and patients. Frequently "curb-side" advice is exhanged among physicians striving to reinforce personal and professional relationships. If primary and referral care are bundled in a DRG payment system, it is expected that the number of consultations will decline. It is not clear what impact the DRGs might have on the collegial and professional relationships among physicians, nor on the ease with which they exchange information and share experience and technical expertise.

An Additional Problem: Distinguishing Primary and Referral Care

If physicians are included in the PPS, HCFA will have to determine the appropriate number of consultations, primary visits, surgical assistants, and fees for hospital-based physicians for each DRG. How many consultations are too many? How many are too few? In addition, the details of bundling in each

DRG will have to be considered: which procedures are directly related to an episode of illness and should be included in a DRG reimbursement bundle? How will procedures unrelated to the primary diagnosis be reimbursed? It is often in the interest of patients, particularly those who are old or frail and likely to be lost to follow up, to complete all tests and procedures and referrals necessary for the long-term comprehensive care of the patient, prior to discharge from the hospital.

Although a holistic perspective by a "gate-keeper" is a desirable objective, it is not always easy to decide which physician is the gate keeper and which is the consultant. Consulting physicians are often as intimately involved as the primary physician in the care of sick or injured patients. Consider the victim of multiple trauma. Such patients are usually admitted to general surgeons, although neurosurgeons, orthopedic surgeons, pulmonary specialists, urologists and a vareity of medical subspecialists may contribute significantly to the patient's care. Will the consultant be adequately reimbursed under the DRG system? If not there might ensue a general reluctance to participate in the care of such complex patients.

Conclusions

The prospective payment system for hospitals is now law. In the near future the PPS may also become the model for the payment of physicians. Therefore, HCFA is presently concerned with the potential impact of case-based prospective reimbursement on the cost, quality and content of hospital health care. In evaluating the feasability and advisability of a physician DRG plan, statistical, financial and clinical perspectives all come to the fore.

Containment of health care costs is, properly, the top priority of the administrators of the Medicare Program. Most administrators and policy makers agree that the current fee-for-service mechanism of reimbursement can no longer be afforded, but must be replaced with a system of prospective pricing and case-mix-based payment. DRG's for physicians are one such option. Under DRG's physicians would be reimbursed a fixed amount per discharge, based primarily upon the principal diagnosis of the patient. Furthermore, under DRG's physicians would know in advance the revenue limits imposed for each patient's care. The obvious implication is that physicians, like hospitals, would be placed directly at risk for unnecessary costs, and indeed, that would be the goal of the new pricing system. DRG's offer the promise of greater efficiency in physician-delivered hospital care.

Yet, quality of care and access to a wide range of medical services are also important to HCFA and to beneficiaries of the Medicare Program. While ernestly pursuing the goal of efficiency, safeguards for quality cannot be forgotten. One component of quality is availability of referral and consultations, sought by physicians for patients under their care.

The modern health care product is an increasingly complex multi-disciplinary service, delivered jointly to patients by several vendors. It is rare that an ill patient receives all of his care from a single physician. Indeed, referrals and consultations lie at the heart of m~~e~~odern medical care. Under the current charge-based system of reimbursement for physicians, primary and referral care are freely interwoven.

More than any other proposal, a DRG system for physicians' services may abridge or appear to abridge the discretionary lattitude of physicians seeking consultations. This paper reviews the literature about whether consultations and referrals exert a favorable impact upon the outcome of patient care; indeed, there appears to be evidence that such a positive relationship exists. Therefore, the possibility is raised that a single payment DRG plan for physician's services might produce distortions in the medical care system which would lower the quality of care to Medicare beneficiaries.

Despite the theoretical advantages of a holistic approach to hospital care and the desirability of primary physician-managers. The gate-keeper approach may prove unworkable for the hospital care of Medicare patients, in light of the complexity of patient needs. One wonders if physicians can appropriately -- but not excessively -- limit consultations, when simultaneously faced with patients who are ill, an uncertain diagnosis and prognosis, pressure from colleagues, medical legal standards, and personal financial risk. In making each referral decision, primary physicians will have to weigh net advantages, balancing the role of gate-keeper with the more traditional roles of doctor. One must inquire how much economic and competative pressure can be imposed upon the key decision-maker and advocate for patients.

The PPS, if it is applied to physician services, could prove increasingly controversial in the coming years. Young physicians in particular are trained to be complete in their approach to patients.[55] Data by Gertman and others indicates that younger physicians seek subspecialty consultations more frequently than their older colleagues.[56] In addition, each year there emerge new subspecialists, such as nutritionists, critical-care physicians, rehabilitative cardiologists, geriatricians and many non-physician professionals. All provide care to patients, and all must be paid.

Finally, the lay public has also expressed its confidence in the consultative and referal pattern of care.[57] Price conducted a large survey of health care consumers, asking respondents to rank the attributes of physicians which contributed most to the quality of health care. Rated of "extreme importance," along with clinical judgement and up to date knowledge of medicine, was the trait "readily refers patients when it is to patients' advantage to do so." Among the most undesirable qualities of physicians was the trait "holds on to his patients to an undue degree, disinclined to seek or suggest consultation."

THE IMPORTANCE OF CONSULTATIONS TO HOSPITALIZED PATIENTS

1. Reasons for Consultations (Lee, Pappius and Goldman)

    Advice on diagnosis: 56%
    Advice on management: 37%
    Assistance for procedure: 20%
    Confirmation of physical finding: 3%
    Assistance in data interpretation: 9%
    Long-term specialty follow-up: 5%
    Interest only/superfluous: 9%

2. General Internists as Consultants (Charleson et al., Byyny et al.)

    50% of referrals for pre/post-operative care
    25% of patients moderately-severely ill
    56%-88% of patients have at least one serious medical disease

3. Outcomes (Lee, Pappius, Goldman)

    23% "crucial" (changed diagnosis and/or treatment directly)
    46% contributing" of new information
    25% only "confirmatory"
    6% superfluous, academic

    Outcomes (Sears)

    Average of 6.2 recommendations per patient (1 critical)
    For patients ≥ age 70, 6.9 recommendations per patient

    Outcomes (Charleson)

    Pre-operative consultations: surgery cancelled, postponed or permitted only with contingencies in 16%
    Pulmonary: patient "definitely benefited" in 52% (Perlman)
    95% of suggestions for diagnosis later proved correct

4. Compliance (Sears, Goldman, Charleson, Klein)

    50-80%

5. Other Benefits

    Discovery of new, important problems:
        Heffernen: 33%
        Horwitz: 20%
    Primary data gathering and simple "cost-free" tests: 91% (Goldman)

6. Costs

    Goldman: 70% consultations lead to at least 1 additional test
    inverse cost for tests and procedures: $300 (median=$113)

7. Importance to Physicians

    30-90% of physicians' new patients from referrals; internists spend 20% of time in consultative work

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